



JPW/1853

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN THE APPLICATION OF:

VELLIYUR NOTT MALLIKARJUNA RAO ET. AL.

CASE NO.: CL2100USPCT

APPLICATION NO.: 10/523226

CONFIRMATION NO.: UNKNOWN

GROUP ART UNIT: UNKNOWN

EXAMINER: UNKNOWN

FILED: January 31, 2005

FOR: NICKEL - SUBSTITUTED AND MIXED NICKEL - AND COBALT -  
SUBSTITUTED CHROMIUM OXIDE COMPOSITIONS, THEIR  
PREPARATION, AND THEIR USE AS CATALYSTS AND CATALYST  
PRECURSORS

**INFORMATION DISCLOSURE STATEMENT**

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P.O. Box 1450  
Alexandria, VA 22313-1450

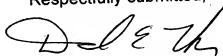
Sir:

In compliance with 37 C.F.R. §§1.97 and 1.98, Applicants bring to the attention of the U.S. Patent and Trademark Office the information listed on the enclosed PTO/SB/08A and/or PTO/SB/08B forms. A copy of the information, if required, is also enclosed. Applicants note however that U.S. Application No. 10/523,227 represents a national filing of WO 2004/018396, U.S. Application No. 10/523,223 represents a national filing of WO 2004/018397 and U.S. Application No. 10/523,228 represents a national filing of WO 2004/018093; and no additional copies of those specifications are enclosed. Additional copies will be provided at the request of the Examiner. A copy of the PCT International Search Report is also enclosed. Consideration of the information is requested under 37 C.F.R. § 1.56 and this information is submitted in accord with the provisions of §1.97(b): within three months of filing the national application under 37 C.F.R. §1.53(d), or entry into the national stage under 37 C.F.R. §1.491, or before the mailing of a first Office Action on the merits, or

before the mailing of a first Office Action on the merits after filing a Request for Continued Examination under 37 C.F.R. §1.114.

If this Information Disclosure Statement is filed under §1.97(b) but the mailing date hereof is after the mailing of a first Office Action on the merits, the PTO is authorized to charge the fee set forth in 37 C.F.R. §1.17(p) to Deposit Account No. **04-1928** (E. I. du Pont de Nemours and Company) in order to complete the requirements for consideration of this Information Disclosure Statement.

Respectfully submitted,



**DAVID E. HEISER**

Attorney for Applicants

Registration No.: 31,366

Telephone: (302) 892-1926

Facsimile: (302) 892-7949

Dated: 6/22/05



PTO/SB/06A (06-03)  
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## **Complete if Known**

Application Number 10/523226  
Filing Date January 31, 2005  
First Named Inventor VELLUYUR NOTT MALLIKARJUNA RAO  
Group Art Unit UNKNOWN  
Examiner Name UNKNOWN  
Attorney Docket Number CL2100USPCT

## **U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No.	Document Number Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US - 3,258,500	06-28-1966	SWAMER ET. AL.	
		US - 3,992,325	11-16-1976	JOACHIM FRIEDRICH KNAAK	
		US - 5,036,036	07-30-1991	JAN J. LEROU	
		US - 2001/0011061 A1	08-02-2001	SCOTT ET. AL.	
		US - 5,185,482	02-09-1993	LEO E. MANZER	
		US - 5,559,069	09-24-1996	RAO ET. AL.	
		US - 4,843,181	06-27-1989	GUMPRECHT ET. AL.	
		US - 10/523,228		RAO ET. AL.	
		US - 10/523,223	08-22-2002	RAO ET. AL.	
		US - 5,345,017	09-06-1994	RAO ET. AL.	
		US - 5,783,898	06-09-1998	MANZER ET. AL.	
		US - 2002/006374 A1	01-17-2002	KOURTAKIS ET. AL.	
		US - 3,804,778	04-16-1974	SALINDRES ET. AL.	
		US - 10/523,227			
		US -			
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## **FOREIGN PATENT DOCUMENTS**

Examiner Initials *	Cite No.	Foreign Patent Document CountryCode <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sub>6</sub>
		AU-A-80340/B4	06-15-1995	ELF ATOCHEM S.A.		<input type="checkbox"/>
		AU-A-29972/92	06-10-1993	ELF ATOCHEM S.A.		<input type="checkbox"/>
		EP 0 847 801 A1	06-17-1998	ELF ATOCHEM S.A.		<input type="checkbox"/>
		EP 0 546 883 B1	06-19-1993	ELF ATOCHEM S.A.		<input type="checkbox"/>
		WO 2004/018093 A2	03-04-2004	DU PONT		<input type="checkbox"/>
		WO 2004/018396 A1	03-04-2004	DU PONT		<input type="checkbox"/>
		WO 2004/018397	03-04-2004	DU PONT		<input type="checkbox"/>
		JP 04-262,372	09-17-1992	YUASA BATTERY		<input type="checkbox"/>

Examiner  
Signature

Date  
Considered

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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Sheet **2** of **3**

## **Complete if Known**

Application Number	10/523226
Filing Date	January 31, 2005
First Named Inventor	VELLYUR NOTT MALLIKARJUNA RAO ET. AL.
Group Art Unit	UNKNOWN
Examiner Name	UNKNOWN
Attorney Docket Number	CL2100USPCT

## **OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		S. MUSIC ET. AL., FORMATION AND CHARACTERIZATION OF THE SOLID SOLUTIONS, J. MATERIALS SCIENCE, 1996, PAGES 4067-4076, VOL. 31	<input type="checkbox"/>
		BHATTACHARYA ET. AL. AN X-RAY DIFFRACTION AND MOSSBAUER STUDY OF NANO-CRYSTALLINE FE2O3-CR2O3 SOLID SOLUTIONS, J. MATERIALS SCIENCE, 1997, PAGES 560-577, VOL. 32	<input type="checkbox"/>
		CHAMBERLAND ET. AL., PREPARATION AND PROPERTIES OF NICRO, J. OF APPLIED PHYSICS, 1969, PAGES 434-435, VOL. 40	<input type="checkbox"/>
		MULLER ET. AL., X-RAY DIFFRACTION STUDY OF THE CHROMATES OF NICKEL, MAGNESIUM AND CADMIUM. ZEITSCHRIFT FUR KRISTALLOGRAPHIE, 1969, PAGES 112-120, BD. 130, S.	<input type="checkbox"/>
		PRINCE E., STRUCTURE OF NICKEL CHROMITE, J. OF APPLIED PHYSICS, 1961, PAGES 685-695, VOL. 32	<input type="checkbox"/>
		NOWOTNY ET. AL., BOUNDARY LAYER CHEMICAL DIFFUSION AND LATTICE PARAMETER OF UNDOPED AND CR-DOPED NIO, BULLETIN OF THE POLISH ACADEMY OF SCIENCES, CHEMISTRY, 1985, PAGES 111-119, VOL. 33	<input type="checkbox"/>
		BRACCONI ET. AL., ETUDE DES PROPRIETES STRUCTURALES DES OXYDES SPINELLES DES SYSTEMS CO-O ET CO-CR-OANN. CHIM. FR., 1979, PAGES 331-336, VOL. 4	<input checked="" type="checkbox"/>
		HANCK ET. AL., STRUCTURAL AND THERMAL STABILITY STUDIES OF LiZn2CrO4 AND Co2CrO4, J. INORG. NUCL. CHEM., 1971, PAGES 63-73, VOL. 33	<input type="checkbox"/>
		CASTIGLIONI ET. AL., SYNTHESIS AND PROPERTIES OF SPINEL-TYPE CO-CU-MG-ZN-CR MIXED OXIDES, J. SOLID STATE CHEMISTRY, 2000, PAGES 526-532, VOL. 152	<input type="checkbox"/>
		NOWOTNY ET. AL., SEGREGATION AND NEAR-SURFACE DIFFUSION FOR UNDOPED AND CR-DOPED CoO, J. AM. CERAM. SOC., 1982, PP 192-196, VOL. 65	<input type="checkbox"/>
		ZHANG ET AL., COBALT DOPED CHROMIUM OXIDES AS CATHODE MATERIALS FOR SECONDARY LITHIUM BATTERIES, JOURNAL OF POWER SOURCES, 1999, PP 121-127, VOL. 83	<input type="checkbox"/>

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Signature

Date  
Considered

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Sheet 3 of 3

### Complete if Known

Application Number	10/523228
Filing Date	January 31, 2005
First Named Inventor	VELLIYUR NOTT MALLIKARJUNA RAO ET. AL.
Group Art Unit	UNKNOWN
Examiner Name	UNKNOWN
Attorney Docket Number	CL2100USPCT

### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		SHANNON ET. AL., EFFECTIVE IONIC RADII IN OXIDES AND FLUORIDES, ACTA CRYSTALLOGRAPHICA, 1969, PAGES 925-945, VOL. B25	<input type="checkbox"/>
		CHEMICAL ABSTRACTS., 118: 9 397, VOL. 118, PAGE 138 (1993)	<input type="checkbox"/>
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